

LFW
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
(Case No. MBHB02-030 B; 900/151)

In re the Application of:

Radka et al.

Serial No.: 10/820,622

Filed: April 8, 2004

For: Antibodies Having Specificity for Nucleic Acids

)
) Group Art Unit: 1642
)
) Examiner: Not Assigned
)
) Confirmation No. 8184
)
)
)
)
)

TRANSMITTAL LETTER

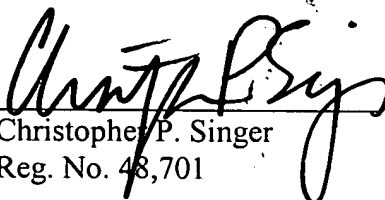
Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In regard to the above-identified application:

1. We are transmitting herewith the attached:
 - a. Information Disclosure Statement
 - b. PTO Form 1449 and Newly Cited References (77 references)
 - c. Return Receipt Postcard
2. With respect to additional fees:
 X a. No additional fee is required.
3. Please charge any deficiency in the amount due, or credit any overpayment, to Deposit Account No. **13-2490**. A duplicate copy of this sheet is enclosed.
4. **CERTIFICATE OF MAILING UNDER 37 CFR § 1.8:** The undersigned hereby certifies that this Transmittal Letter and the papers, as described in paragraph 1 hereinabove, are being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Mail Stop: Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on October 15, 2004.

By:


Christopher P. Singer
Reg. No. 48,701

McDONNELL BOEHNEN
HULBERT & BERGHOFF
300 South Wacker Drive, Suite 3200
Chicago, Illinois 60606
Phone: 312/913-0001

This Statement is not a representation that the cited references have effective dates early enough to be “prior art” within the meaning of 35 U.S.C. §§102 or 103.

CITED REFERENCES

US APPLICATIONS AND PUBLICATIONS

No.	Document Number	Filing Date	Name	Publication Date if Appropriate
* 1.	09/800,594	3/6/01	Usman et al.	
* 2.	10/201394	7/22/02	Vargeese et al.	
* 3.	08/878,640	3/6/01	Ludwig et al.	
* 4.	09/476,387	12/30/99	Beigelman et al.	
* 5.	09/918,728	7/31/01	Beigelman et al.	
* 6.	08/878,640	3/6/01	Ludwig et al.	
7.	10/727,780	12/03/03	Vaish et al.	
8.	60/543,480	02/10/04	Jadhav et al.	
9.	20040037780		Parsons et al.	02/26/04
10.	20010007666		Hoffman et al.	07/12/01
11.	10/201,394	08/13/01	Vargeese et al.	
12.	10/151,116	05/17/02	Matulic-Adamic	
13.	10/665,951	09/18/03	McSwiggen et al.	

US PATENTS

No.	Document Number	Date	Name
* 14.	4,987,071	1/22/91	Cech et al.
* 15.	5,028,524	7/2/91	Fujisawa et al.
* 16.	5,395,938	3/7/95	Ramakrishnan
* 17.	5,589,332	12/31/96	Shih et al.
* 18.	5,672,695	9/30/97	Eckstein et al.
* 19.	5,741,679	4/21/98	George et al.
* 20.	5,767,263	6/16/98	Usman et al.
* 21.	5,807,718	9/15/98	Joyce et al.
* 22.	5,834,186	11/10/98	George et al.
* 23.	5,849,902	12/15/98	Arrow et al.
* 24.	5,871,914	2/16/99	Nathan et al.
* 25.	5,989,912	11/23/99	Arrow et al.

No.	Document Number	Date	Name
* 26.	5,998,203	12/7/99	Matulic-Adamic
* 27.	6,001,311	12/14/99	Brennnan
* 28.	6,087,188	7/11/00	Johansen et al.
* 29.	6,127,173	10/3/00	Eckstein et al.
* 30.	6,159,714	12/12/00	Usman et al.
* 31.	6,342,221	1/29/02	Thorpe et al.
32.	5,670,633	09/23/97	Cook et al.
33.	5,792,847	08/11/98	Buhr et al.
34.	5,898,031	04/27/99	Crooke
35.	6,005,087	12/21/99	Cook et al.
* 36.	6,159,714	12/12/00	Usman et al.
37.	6,107,094	08/22/00	Crooke
38.	6,476,205	11/05/02	Buhr et al.
39.	6,140,491	12/31/00	Usman et al.
40.	6,395,713	05/28/02	Beigelman et al.
41.	6,447,796	09/10/02	Vook et al.
42.	6,180,613	01/30/01	Kaplitt et al.
43.	4,501,729	02/26/85	Boucher et al.
44.	6,592,904	07/15/03	Platz et al.
45.	6,582,728	06/24/03	Platz et al.
46.	6,565,885	05/20/03	Tarara et al.
47.	6,235,310	05/22/01	Wang et al.

FOREIGN PATENTS

No.	Document Number	Date	Country
* 48.	WO 00/24931	5/4/00	PCT
* 49.	WO 00/26226	5/11/00	PCT
* 50.	WO 93/23569	11/25/93	PCT
* 51.	WO 96/10390	4/11/96	PCT

No.	Document Number	Date	Country
* 52.	WO 96/10391	4/11/96	PCT
* 53.	WO 96/10392	4/11/96	PCT
* 54.	WO 97/26270	7/24/97	PCT
* 55.	WO 98/27104	6/25/98	PCT
* 56.	WO 98/58058	12/23/98	PCT
* 57.	WO 99/29842	6/17/99	PCT
* 58.	WO 99/54459	10/28/99	PCT
* 59.	WO 99/55857	11/4/99	PCT
60.	99/53050	10/21/99	WO (Waterhouse et al.)
61.	99/49029	09/30/99	WO (Graham et al.)
62.	00/63364	10/26/00	WO (Pachuk et al.)
63.	99/32619	07/01/99	WO (Fire et al.)
64.	99/61631	12/02/99	WO (Heifetz et al.)
65.	89/02439	09/20/88	WO (Arnold et al)
66.	95/06731	03/09/95	WO (Usman et al)
67.	95/11910	05/04/95	WO (Dudycz et al)
68.	00/44895	08/03/00	WO (Kreutzer et al)
69.	01/36646	05/25/01	WO (Zernicka-Goetz)
70.	00/01846	01/13/00	WO (Plaetinck)
71.	01/29058	04/26/01	WO (Mello and Fire)
72.	99/07409	02/18/99	WO (Deschamps- Depaillette)
73.	00/44914	08/03/00	WO (Li et al)
74.	94/02595	07/02/93	WO (Sullivan et al.)
75.	00/53722	09/14/00	WO (O'Hare and Normand)
76.	04/013280	02/12/04	WO (Davidson et al.)

OTHER DOCUMENTS

- | No. | |
|-------|---|
| * 77. | Bass, "The short answer," <i>Nature</i> 411:428-429 (2001) |
| * 78. | Beigelman et al., "Synthesis of 2'-modified nucleotides and their incorporation into hammerhead ribozymes," <i>Nucleic Acids Research</i> 23(21):4434-4442 (1995) |
| * 79. | Bellon et al., "Amino-Linked Ribozymes: Post-Synthetic Conjugation of Half-Ribozymes," <i>Nucleosides & Nucleotides</i> 16:951-954 (1997) |
| * 80. | Bellon et al., "Post-synthetically Ligated Ribozymes: An Alternative Approach to Iterative Solid Phase Synthesis," <i>Bioconjugate Chem.</i> 8:204-212 (1997) |
| * 81. | Breaker et al., "A DNA enzyme with Mg ² -dependent RNA phosphoesterase activity," <i>Chemistry & Biology</i> 2(10):655-660 (1995) |
| * 82. | Breaker, "Are engineered proteins getting competition from RNA?" <i>Current Opinion in Biotechnology</i> 7:442-448 (1996) |
| * 83. | Breaker, "Catalytic DNA: in training and seeking employment," <i>Nature Biotechnology</i> 17:422-423 (1999) |
| * 84. | Brennan et al., "Two-Dimensional Parallel Array Technology as a New Approach to Automated Combinatorial Solid-Phase Organic Synthesis," <i>Biotechnology and Bioengineering (Combinatorial Chemistry)</i> 61:33-45 (1998) |
| * 85. | Brody and Gold, "Aptamers as therapeutic and diagnostic agents," <i>Reviews in Molecular Biotechnology</i> 74:5-13 (2000) |
| * 86. | Burgin et al., "Chemically Modified Hammerhead Ribozymes with Improved Catalytic Rates," <i>Biochemistry</i> 35:14090-14097 (1996) (volume no. mistakenly listed as 6) |
| * 87. | Caruthers et al., "Chemical Synthesis of Deoxyoligonucleotides and Deoxyoligonucleotide Analogs," <i>Methods in Enzymology</i> 211:3-19 (1992) |
| * 88. | Cech, "Ribozymes and Their Medical Implications," <i>JAMA</i> 260:3030-3034 (1988) |
| * 89. | Chartrand et al., "An oligodeoxyribonucleotide that supports catalytic activity in the hammerhead ribozyme domain," <i>Nucleic Acids Research</i> 23(20):4092-4096 (1995) |
| * 90. | Crooke et al., "Antisense '97: A roundtable on the state of the idustry," <i>Nature Biotechnology</i> 15:519-524 (1997) |
| * 91. | Crooke, "Advances in Understanding the Pharmacological Properties of Antisense Oligonucleotides," <i>Advances in Pharmacology</i> 40:1-49 (1997) |
| * 92. | Crooke, "Antisense Therapeutics," <i>Biotechnology and Genetic Engineering Reviews</i> 15:121-157 (1998) |
| * 93. | Crooke, "Progress in Antisense Technology: The End of the Beginning," <i>Methods in Enzymology</i> 313:3-45 (1999) |

- * 94. Delibas et al., "Natural antisense RNA/target RNA interactions: Possible models for antisense oligonucleotide drug design," Nature Biotechnology 15:751-753 (1997)
- * 95. Duval-Valentin, "Specific inhibition of transcription by triple helix-forming oligonucleotides," Proc. Natl. Acad. Sci. USA 89:504-508 (1992)
- * 96. Egholm et al., "PNA hybridizes to complementary oligonucleotides obeying the Watson-Crick hydrogen-bonding rules," Nature 365:566-568 (1993)
- * 97. Elbashir et al., "Duplexes of 21-nucleotide RNAs mediate RNA interference in cultured mammalian cells," Nature 411:494-498 (2001)
- * 98. Fox, "Targeting DNA with Triplexes," Current Medicinal Chemistry 7:17-37 (2000)
- * 99. Freier et al., "Improved free-energy parameters for predictions of RNA duplex stability," Proc. Natl. Acad. Sci. USA 83:9373-9377 (1986) [sometimes referred to as Frier]
- * 100. Gold et al., "Diversity of Oligonucleotide Functions," Annu. Rev. Biochem. 64:763-797 (1995)
- * 101. Halloran and Parker, "The Preparation of Nucleotide-Protein Conjugates: Carbodiimides as Coupling Agents," Journal of Immunology 96:373-378 (1966)
- * 102. Hammann et al., "Length Variation of Helix III in a Hammerhead Ribozyme and Its Influence on Cleavage Activity," Antisense & Nucleic Acid Drug Development 9:25-31 (1999)
- * 103. Hermann and Patel, "Adaptive Recognition by Nucleic Acid Aptamers," Science 287:820-825 (2000)
- * 104. Hertel et al., "Numbering System for the Hammerhead," Nucleic Acids Research 20:3252 (1992)
- * 105. Ishiwata et al., "Physical-Chemistry Characteristics and Biodistribution of Poly(ethylene glycol)-Coated Liposomes Using Poly(oxyethylene) Cholesteryl Ether," Chem. Pharm. Bull. 43:1005-1011 (1995) (mistakenly referred to as Ishiwataet)
- * 106. Jayasena, "Aptamers: An Emerging Class of Molecules that Rival Antibodies in Diagnostics," Clinical Chemistry 45:1628-1650 (1999)
- * 107. Kearney et al., "A New Mouse Myeloma Cell Line That Has Lost Immunoglobulin Expression but Permits the Construction of Antibody-Secreting Hybrid Cell Lines," Journal of Immunology 123:1548-1550 (1979)
- * 108. Kore, et al., "Sequence specificity of the hammerhead ribozyme revisitsd; the NIH rule," Nucleic Acids Research, 26(18):4116-4120 (1998).
- * 109. Kusser, "Chemically modified nucleic acid aptamers for in vitro selections: evolving evolution," Reviews in Molecular Biotechnology 74:27-38 (2000)
- * 110. Lasic and Needham "The 'Stealth' Liposome: A Prototypical Biomaterial," Chemical Reviews 95:2601-2627 (1995)
- * 111. Lasic and Papahadjopoulos, "Liposomes Revisited," Science 267:1275-1276

(1995)

- * 112. Limbach et al., "Summary: the modified nucleosides of RNA," Nucleic Acids Research 22(12):2183-2196 (1994)
- * 113. Liu et al., "Cationic Liposome-mediated Intravenous Gene Delivery," J. Biol. Chem. 270(42):24864-24870 (1995)
- * 114. Moore and Sharp, "Site-Specific Modification of Pre-mRNA: The 2'-Hydroxyl Groups at the Splice Sites," Science 256:992-996 (1992)
- * 115. Oku et al., "Real-time analysis of liposomal trafficking in tumor-bearing mice by use of positron emission tomography," Biochimica et Biophysica Acta 1238:86-90 (1995)
- * 116. Player and Torrence, "The 2-5A System: Modulation of Viral and Cellular Processes Through Acceleration of RNA Degradation," *Pharmacol Ther.* 78:55-113 (1998)
- * 117. Praseuth et al., "Triple helix formation and the antigene for sequence-specific control of gene expression," *Biochimica et Biophysica Acta* 1489:181-206 (1999)
- * 118. Santoro and Joyce, "A general purpose RNA-cleaving DNA enzyme," Proc. Natl. Acad. Sci. USA 94:4262-4266 (1997)
- * 119. Santoro et al., "RNA Cleavage by a DNA Enzyme with Extended Chemical Functionality," *J. Am. Chem. Soc.* 122:2433-2439 (2000)
- * 120. Scaringe et al., "Chemical synthesis of biologically active oligoribonucleotides using β -cyanoethyl protected ribonucleoside phosphoramidites," Nucl Acids Res. 18:5433-5441 (1990)
- * 121. Schmajuk et al., "Antisense Oligonucleotides with Different Backbones," *The Journal of Biological Chemistry* 274:21783-21789 (1999)
- * 122. Shabarova et al., "Chemical ligation of DNA: The first non-enzymatic assembly of a biologically active gene," Nucleic Acids Research 19:4247-4251 (1991)
- * 123. Silverman et al., "Selective RNA Cleavage by Isolated RNase L Activated with 2-5A Antisense Chimeric Oligonucleotides," *Methods in Enzymology* 313:522-533 (1999)
- * 124. Stein and Cheng, "Antisense Oligonucleotides as Therapeutic Agents - Is the Bullet Really Magical?" Science 261:1004-1288 (1993)
- * 125. Stein et al., "A Specificity Comparison of Four Antisense Types: Morpholino, 2'-O-Methyl RNA, DNA, and Phosphorothioate DNA," Antisense & Nucleic Acid Drug Development 7:151-157 (1997)
- * 126. Sullenger et al., "Overexpression of TAR Sequences Renders Cells Resistant to Human Immunodeficiency Virus Replication," Cell 63:601-608 (1990)
- * 127. Sun, "Technology evaluation: SELEX, Giliad Sciences Inc," Current Opinion in Molecular Therapeutics 2:100-105 (2000)
- * 128. Torrence et al., "Targeting RNA for degradation with a (2'-5') oligoadenylate-antisense chimera," Proc. Natl. Acad. Sci. USA 90:1300-1304 (1993)

- * 129. Turner et al., "Improved Parameters for Prediction of RNA Structure," Cold Spring Harbor Symposia on Quantitative Biology Volume LII, pp. 123-133 (1987)
- * 130. Turner et al., "Free Energy Increments for Hydrogen Bonds in Nucleic Acid Base Pairs," J. Am. Chem. Soc. 109:3783-3785 (1987)
- * 131. Usman and Cedergren, "Exploiting the chemical synthesis of RNA," TIBS 17:334-339 (1992)
- * 132. Usman et al., "Automated Chemical Synthesis of Long Oligoribonucleotides Using 2'-O-Silylated Ribonucleoside 3'-O-Phosphoramidites on a Controlled-Pore Glass Support: Synthesis of a 43-Nucleotide Sequence Similar to the 3'-Half Molecule of an *Escherichia coli* Formylmethoionine tRNA," J. Am. Chem. Soc. 109:7845-7854 (1987)
- * 133. Usman et al., "Chemical modification of hammerhead ribozymes: activity and nuclease resistance," Nucleic Acids Symposium Series 31:163-164 (1994)
- * 134. Usman et al., "Hammerhead ribozyme engineering," Current Opinion in Structural Biology 1:527-533(1996)
- * 135. Werner and Uhlenbeck, "The effect of base mismatches in the substrate recognition helices of hammerhead ribozymes on binding and catalysis," Nucleic Acids Research 23:2092-2096 (1995)
- * 136. Wincott et al., "Synthesis, deprotection, analysis and purification of RNA and ribozymes," Nucleic Acids Research 23(14):2677-2684.(1995)
- * 137. Wincott et al., "Synthesis, deprotection, analysis and purification of RNA and ribozymes," Nucleic Acids Research 23(14):2677-2684 (1995)
- * 138. Wincott et al., "A Practical Method for the Production of RNA and Ribozymes," Methods in Molecular Biology 74:59-69 (1997)
- * 139. Yoshikawa et al., "Studies of Phosphorylation. III. Selective Phosphorylation of Unprotected Nucleosides," Bulletin of the Chemical Society of Japan 42:3505-3508 (1969)
- 140. Bahramian et al., "Transcriptional and Posttranscriptional Silencing of Rodent $\alpha 1(I)$ Collagen by a Homologous Transcriptionally Self-Silenced Transgene," Molecular and Cellular Biology, 274-283 (1999)
- 141. Fire et al., "Potent and Specific Genetic Interference by Double-Stranded RNA in *Caenorhabditis Elegans*," Nature 391:806-811(1998)
- 142. Hamilton, et al., "A Species of Small Antisense RNA in Posttranscriptional Gene Silencing in Plants," Science, 286, 950-952 (1999)
- 143. Lin et al., "Policing rogue genes," Nature, 402, 128-129 (1999)
- 144. Sharp et al., "RNAi and double-strand RNA," Genes & Development, 13:139-141 (1999)
- 145. Strauss, Evelyn, "Molecular Biology: Candidate 'Gene Silencers' Found," Molecular Biology, Vol. 286, No. 5441, p. 886 (1999) [sometimes mistakenly referred to as being published in *Science*]
- 146. Tuschl et al., "Targeted mRNA Degradation by Double-Stranded RNA In Vitro," Genes & Development 13:3191-3197 (1999)

147. Waterhouse et al., "Virus resistance and gene silencing in plants can be induced by simultaneous expression of sense and antisense RNA," *Proc. Natl. Acad. Sci. USA*, 95, 13959-13964 (1998)
148. Durand et al., "Circular Dichroism Studies of an Oligodeoxyribonucleotide Containing a Hairpin Loop Made of a Hexaethylene Glycol Chain: Conformation and Stability," *Nucleic Acids Research* 18:6353-6359 (1990) [sometimes referred to as Seela and Kaiser]
149. Seela and Kaiser, "Oligodeoxyribonucleotides containing 1,3-propanediol as nucleoside substitute," *Nucleic Acids Research* 15:3113-3129 (1987)
150. Cload and Schepartz, "Polyether Tethered Oligonucleotide Probes," *J. Am. Chem. Soc.* 113:6324-6326 (1991)
151. Richardson and Schepartz, "Tethered Oligonucleotide Probes. A Strategy for the Recognition of Structured RNA," *J. Am. Chem. Soc.* 113:5109-5111 (1991)
152. Ma et al., "Design and Synthesis of RNA Miniduplexes via a Synthetic Linker Approach. 2. Generation of Covalently Closed, Double-Stranded Cyclic HIV-1 TAR RNA Analogs with High Tat-Binding Affinity," *Nucleic Acids Research* 21:2585-2589 (1993)
153. Ma et al., "Design and Synthesis of RNA Miniduplexes via a Synthetic Linker Approach," *Biochemistry* 32:1751-1758 (1993)
154. McCurdy et al., "Deoxyoligonucleotides with Inverted Polarity: Synthesis and Use in Triple-Helix Formation" *Nucleosides & Nucleotides* 10:287-290 (1991)
155. Jaschke et al., "Automated Incorporation of Polyethylene Glycol into Synthetic Oligonucleotides," *Tetrahedron Letters* 34:301-304 (1993) (sometimes mistakenly referred to as Jsckke)
156. Ono et al., "DNA Triplex Formation of Oligonucleotide Analogues Consisting of Linker Groups and Octamer Segments That Have Opposite Sugar-Phosphate Backbone Polarities," *Biochemistry* 30:9914-9921 (1991)
157. Ferentz and Verdine, "Disulfied Cross-Linked Oligonucleotides," *J. Am. Chem. Soc.* 113:4000-4002 (1991)
158. Schwarz et al., "Asymmetry in the Assembly of the RNAi Enzyme Complex," *Cell*, 1115, 199-208 (2003)
159. Zamore et al., "RNAi: Double-Stranded RNA Directs the ATP-Dependent Cleavage of mRNA at 21 to 23 Nucleotide Intervals," *Cell* 101:25-33 (2000)
160. Allshire, "RNAi and Heterochromatin - A Hushed-up Affair," *Science* 297:1818-1819 (2002)
161. Volpe et al., "Regulation of Heterochromatic Silencing and Histone H3 Lysine-9 Methylation by RNAi," *Science* 297:1833-1837 (2002)
162. Hall et al., "Establishment and Maintenance of a Heterochromatin Domain," *Science* 297:2232-2237 (2002)

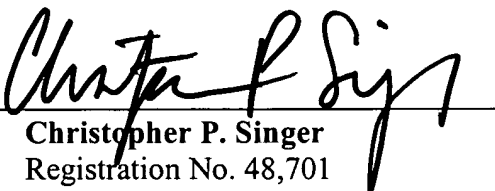
163. Hutvagner and Zamore, "A MicroRNA in a Multiple-Turnover RNAi Enzyme Complex," Science 297:2056-2060 (2002)
164. McManus et al., "Gene Silencing Using Micro-RNA Designed Hairpins," RNA 8:842-850 (2002)
165. Reinhart et al., "MicroRNAs in Plants," Genes & Development 16:1616-1626 (2002)
166. Reinhart and Bartel, "Small RNAs Correspond to Centromer Heterochromatic Repeats," Science 297:1831 (2002)
167. Martinez et al., "Single-Stranded Antisense siRNAs Guide Target RNA Cleavage in RNAi," Cell 110:563-574 (2002)
168. Schwarz et al., "Evidence that siRNAs Function as Guides, Not Primers, in the *Drosophila* and Human RNAi Pathways," Molecular Cell 10:537-548 (2002)
169. Verdel et al., "RNAi-Mediated Targeting of Heterochromatin by the RITS Complex," Science, 303, 672-676 (2004)
170. Jenuwein, "An RNA-Guided Pathway for the Epigenome," Science 297:2215-2218 (2002)
171. Akhtar and Juliano, "Cellular Uptake and Intracellular Fate of Antisense Oligonucleotides," Trends Cell Biol. 2:139-144 (1992)
172. Elkins and Rossi, "Ch. 2 - Cellular Delivery of Ribozymes," in Delivery Strategies for Antisense Oligonucleotide Therapeutics, edited by Akhtar, CRC Press, pp. 17-220 (1995)
173. Maurer et al., "Lipid-based systems for the intracellular delivery of genetic drugs," Molecular Membrane Biology 16:129-140 (1999)
174. Hofland and Huang, "Formulation and Delivery of Nucleic Acids," Handbook of Exp. Pharmacol. 137:165-192 (1999)
175. Lee and Larson, "Modified Liposome Formulations for Cytosolic Delivery of Macromolecules," ACS Symposium Series 752:184-192 (2000)
176. Gonzalez et al., "New Class of Polymers for the Delivery of Macromolecular Therapeutics," Bioconjugate Chem. 10:1068-1074 (1999)
177. Sommer et al., "The Spread and Uptake Pattern of Intracerebrally Administered Oligonucleotides in Nerve and Glial Cell Populations of the Rat Brain," Antisense & Nucleic Acid Drug Development 8:75-85 (1998)
178. Epa et al., "Downregulation of the p75 Neurotrophin Receptor in Tissue Culture and In Vivo, Using β -Cyclodextrin-Adamantane-Oligonucleotide Conjugates," Antisense & Nucleic Acid Drug Development, 10:469-478 (2000)
179. Broaddus et al., "Distribution and stability of antisense phosphorothioate oligonucleotides in rodent brain following direct intraparenchymal controlled-rate infusion," J Neurosurg 88:734-742 (1998)
180. Karle et al., "Differential Changes in Induced Seizures After Hippocampal Treatment of Rats with an Antisense Oligodeoxynucleotide to the GABA_A Receptor $\gamma 2$ Subunit," Euro. Jour. of Pharmacology 340:153-160 (1997)
181. Bannai et al., "Effect of Injection of Antisense of Oligodeoxynucleotides of GAD Isozymes into Rat Ventromedial Hypothalamus on Food Intake and Locomotor Activity," Brain Research 784:305-315 (1998)
182. Rajakumar et al., "Effects of Intrastriatal Infusion of D₂ Receptor Antisense Oligonucleotide on Apomorphine-Induced Behaviors in the Rat," Synapse 26:199-208 (1997)

183. Wu-Pong et al., "Antisense c-myc Oligonucleotide Cellular Uptake and Activity," Antisense Research and Development 4:155-163 (1994)
184. Bannai et al., "Water-absorbent Polymer as a Carrier for a Discrete Deposit of Antisense Oligodeoxynucleotides in the Central Nervous System," Brain Research Protocols 3:83-87 (1998)
185. Simantov et al., "Dopamine-Induced Apoptosis in Human Neuronal Cells: Inhibition by Nucleic Acids Antisense to the Dopamine Transporter," Neuroscience 74(1):39-50 (1996)
186. Emerich et al., "Biocompatibility of Poly (DL-Lactide-co-Glycolide) Microspheres Implanted Into the Brain," Cell Transplantation 8:47-58 (1999)
187. Boado et al., "Drug Delivery of Antisense Molecules to the Brain for Treatment of Alzheimer's Disease and Cerebral AIDS," Journal of Pharmaceutical Sciences 87:1308-1315 (1998)
188. Tyler et al., "Specific gene blockade shows that peptide nucleic acids readily enter neuronal cells in vivo," FEBS Letters 421:280-284 (1998)
189. Pardridge et al., "Vector-mediated delivery of a polyamide ("peptide") nucleic acid analogue through the blood-brain barrier *in vivo*," Proc. Natl. Acad. Sci. USA 92:5592-5596 (1995)
190. Boado, "Antisense drug delivery through the blood-brain barrier," Advanced Drug Delivery Reviews 15:73-107 (1995)
191. Aldrian-Herrada et al., "A peptide nucleic acid (PNA) is more rapidly internalized in cultured neurons when coupled to a *retro-inverso* delivery peptide. The antisense activity depresses the target mRNA and protein in magnocellular oxytocin neurons," Nucleic Acids Research 26:4910-4916 (1998)
192. Tyler et al., "Peptide nucleic acids targeted to the neurotensin receptor and administered i.p. cross the blood-brain barrier and specifically reduce gene expression," Proc. Natl. Acad. Sci. USA 96:7053-7058 (1999)
193. Wu and Wu, "Receptor-mediated *in Vitro* Gene Transformation by a Soluble DNA Carrier System," The Journ. of Biol. Chem. 262:4429-4432 (1987)
194. Baenziger and Fiete, "Galactose and N-Acetylgalactosamine-Specific Endocytosis of Glycopeptides by Isolated Rat Hepatocytes," Cell 22:611-620 (1980)
195. Connolly et al., "Binding and Endocytosis of Cluster Glycosides by Rabbit Hepatocytes," The Journ. of Biol. Chem. 257:939-945 (1982)
196. Lee and Lee, "Preparation of Cluster Glycosides of N-Acetylgalactosamine That Have Subnanomolar Binding Constants Towards the Mammalian Hepatic Gal/GalNAc-specific Receptor," Glyconjugates J. 4:317-328 (1987)
197. Ponpipom et al., "Cell-Specific Ligands for Selective Drug Delivery to Tissues and Organs," J. Med. Chem. 24:1388-1395 (1981)
198. Yamada et al., "Nanoparticles for the delivery of genes and drugs to human hepatocytes," Nature Biology, Published online: 29 June 2003, doi:10.1038/nbt843 (August 2003 Volume 21 Number 8 pp 885-890) (2003) [mistakenly referred to as Yamado]
199. Pal-Bhadra et al., "Heterochromatic Silencing and HP1 Localizatin in Drosophila Are Dependent on the RNAi Machinery," Science, 303, 669-672 (2004)

In accordance with MPEP Sections 609 and 707.05(b), it is requested the document cited (including any cited in applicant's specification which is not repeated on the attached Form PTO-1449) be given thorough consideration and that it be cited of record in the prosecution history of the present application by initialing on Form PTO-1449. Such initialing is requested even if the Examiner does not consider a cited document to be sufficiently pertinent to use in a rejection, or otherwise does not consider it to be prior art for any reason, or even if the Examiner does not believe that the guidelines for citation have been fully complied with. This is requested so that each document becomes listed on the face of the patent issuing on the present application.

Respectfully submitted,

Date: October 15, 2004

By: 
Christopher P. Singer
Registration No. 48,701

Form PTO-1449 U.S. Department of Commerce Patent and Trademark Office INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Atty. Docket No.	Serial No.
	02-030-A	10/366,191
	Applicant : Radka et al.	
	Filing Date: February 12, 2003	Group: Not yet assigned



U.S. PATENT APPLICATION DOCUMENTS

Examiner Initial	No.	Document Number	Filing Date	Name	Publication Date if Appropriate
*	1.	09/800,594	3/6/01	Usman et al.	
*	2.	10/201394	7/22/02	Vargeese et al.	
*	3.	08/878,640	3/6/01	Ludwig et al.	
*	4.	09/476,387	12/30/99	Beigelman et al.	
*	5.	09/918,728	7/31/01	Beigelman et al.	
*	6.	08/878,640	3/6/01	Ludwig et al.	
	7.	10/727,780	12/03/03	Vaish et al.	
	8.	60/543,480	02/10/04	Jadhav et al.	
	9.	20040037780		Parsons et al.	02/26/04
	10.	20010007666		Hoffman et al.	07/12/01
	11.	10/201,394	08/13/01	Vargeese et al.	
	12.	10/151,116	05/17/02	Matulic-Adamic	
	13.	10/665,951	09/18/03	McSwiggen et al.	

U.S. PATENT DOCUMENTS

Examiner Initial	No.	Document Number	Date	Name	Class	Subclass	Filing Date
*	14.	4,987,071	1/22/91	Cech et al.			
*	15.	5,028,524	7/2/91	Fujisawa et al.			
*	16.	5,395,938	3/7/95	Ramakrishnan			
*	17.	5,589,332	12/31/96	Shih et al.			
*	18.	5,672,695	9/30/97	Eckstein et al.			
*	19.	5,741,679	4/21/98	George et al.			
*	20.	5,767,263	6/16/98	Usman et al.			
*	21.	5,807,718	9/15/98	Joyce et al.			
*	22.	5,834,186	11/10/98	George et al.			
*	23.	5,849,902	12/15/98	Arrow et al.			
*	24.	5,871,914	2/16/99	Nathan et al.			
*	25.	5,989,912	11/23/99	Arrow et al.			

Examiner	Date Considered
----------	-----------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with any communication.

Form PTO-1449 U.S. Department of Commerce Patent and Trademark Office INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Atty. Docket No.	Serial No.
	02-030-A	10/366,191
	Applicant : Radka et al.	
	Filing Date: February 12, 2003	Group: Not yet assigned

Examiner Initial	No.	Document Number	Date	Name	Classes	Subclass	Filing Date
	* 26.	5,998,203	12/7/99	Matulic-Adamic			
	* 27.	6,001,311	12/14/99	Brennnan			
	* 28.	6,087,188	7/11/00	Johansen et al.			
	* 29.	6,127,173	10/3/00	Eckstein et al.			
	* 30.	6,159,714	12/12/00	Usman et al.			
	* 31.	6,342,221	1/29/02	Thorpe et al.			
	32.	5,670,633	09/23/97	Cook et al.			
	33.	5,792,847	08/11/98	Buhr et al.			
	34.	5,898,031	04/27/99	Crooke			
	35.	6,005,087	12/21/99	Cook et al.			
	* 36.	6,159,714	12/12/00	Usman et al.			
	37.	6,107,094	08/22/00	Crooke			
	38.	6,476,205	11/05/02	Buhr et al.			
	39.	6,140,491	12/31/00	Usman et al.			
	40.	6,395,713	05/28/02	Beigelman et al.			
	41.	6,447,796	09/10/02	Vook et al.			
	42.	6,180,613	01/30/01	Kaplitt et al.			
	43.	4,501,729	02/26/85	Boucher et al.			
	44.	6,592,904	07/15/03	Platz et al.			
	45.	6,582,728	06/24/03	Platz et al.			
	46.	6,565,885	05/20/03	Tarara et al.			
	47.	6,235,310	05/22/01	Wang et al.			

FOREIGN PATENT DOCUMENTS

Examiner Initial	No.	Document Number	Date	Country	Class	Subclass	Translation Yes No
	* 48.	WO 00/24931	5/4/00	PCT			
	* 49.	WO 00/26226	5/11/00	PCT			
	* 50.	WO 93/23569	11/25/93	PCT			
	* 51.	WO 96/10390	4/11/96	PCT			

Examiner	Date Considered
----------	-----------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with any communication.

Form PTO-1449 U.S. Department of Commerce Patent and Trademark Office INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Atty. Docket No. 02-030-A	Serial No. 10/366,191
	Applicant : Radka et al.	
	Filing Date: February 12, 2003	Group: Not yet assigned

Examiner Initial	No.	Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
*	52.	WO 96/10391	4/11/96	PCT				
*	53.	WO 96/10392	4/11/96	PCT				
*	54.	WO 97/26270	7/24/97	PCT				
*	55.	WO 98/27104	6/25/98	PCT				
*	56.	WO 98/58058	12/23/98	PCT				
*	57.	WO 99/29842	6/17/99	PCT				
*	58.	WO 99/54459	10/28/99	PCT				
*	59.	WO 99/55857	11/4/99	PCT				
CXXX- 2544	60.	99/53050	10/21/99	WO (Waterhouse et al.)				
CXXVII- 2435	61.	99/49029	09/30/99	WO (Graham et al.)				
CXXX- 2540	62.	00/63364	10/26/00	WO (Pachuk et al.)				
CXXII- 2332	63.	99/32619	07/01/99	WO (Fire et al.)				
CXLI-2825	64.	99/61631	12/02/99	WO (Heifetz et al.)				
XII-244	65.	89/02439	09/20/88	WO (Arnold et al)				
LVI-387	66.	95/06731	03/09/95	WO (Usman et al)				
LXIII-619	67.	95/11910	05/04/95	WO (Dudycz et al)				
CXXV- 2397	68.	00/44895	08/03/00	WO (Kreutzer et al)				
CXXI- 2330	69.	01/36646	05/25/01	WO (Zernicka- Goetz)				
CXXI-	70.	00/01846	01/13/00	WO (Plaetinck)				

Examiner	Date Considered
-----------------	------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with any communication.

Form PTO-1449 U.S. Department of Commerce Patent and Trademark Office INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Atty. Docket No.	Serial No.
	02-030-A	10/366,191
	Applicant : Radka et al.	
	Filing Date: February 12, 2003	Group: Not yet assigned

Examiner Initial	No.	Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
2327								
CXXII-2333	71.	01/29058	04/26/01	WO (Mello and Fire)				
CXXI-2328	72.	99/07409	02/18/99	WO (Deschamps-Depaillette)				
CXXII-2334	73.	00/44914	08/03/00	WO (Li et al)				
XIV-281	74.	94/02595	07/02/93	WO (Sullivan et al.)				
CIX-2031	75.	00/53722	09/14/00	WO (O'Hare and Normand)				
CXLII-2857	76.	04/013280	02/12/04	WO (Davidson et al.)				

OTHER DOCUMENTS - Including Author, Title, Date, Pertinent Pages, Etc.

Examiner Initial	No.	
*	77.	Bass, "The short answer," <i>Nature</i> 411:428-429 (2001)
*	78.	Beigelman et al., "Synthesis of 2'-modified nucleotides and their incorporation into hammerhead ribozymes," <i>Nucleic Acids Research</i> 23(21):4434-4442 (1995)
*	79.	Bellon et al., "Amino-Linked Ribozymes: Post-Synthetic Conjugation of Half-Ribozymes," <i>Nucleosides & Nucleotides</i> 16:951-954 (1997)
*	80.	Bellon et al., "Post-synthetically Ligated Ribozymes: An Alternative Approach to Iterative Solid Phase Synthesis," <i>Bioconjugate Chem.</i> 8:204-212 (1997)
*	81.	Breaker et al., "A DNA enzyme with Mg ²⁺ -dependent RNA phosphoesterase activity," <i>Chemistry & Biology</i> 2(10):655-660 (1995)
*	82.	Breaker, "Are engineered proteins getting competition from RNA?" <i>Current Opinion in Biotechnology</i> 7:442-448 (1996)
*	83.	Breaker, "Catalytic DNA: in training and seeking employment," <i>Nature Biotechnology</i> 17:422-423 (1999)
*	84.	Brennan et al., "Two-Dimensional Parallel Array Technology as a New Approach to

Examiner	Date Considered
----------	-----------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with any communication.

Form PTO-1449 U.S. Department of Commerce Patent and Trademark Office INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Atty. Docket No. 02-030-A	Serial No. 10/366,191
	Applicant : Radka et al.	
	Filing Date: February 12, 2003	Group: Not yet assigned

		Automated Combinatorial Solid-Phase Organic Synthesis," <i>Biotechnology and Bioengineering (Combinatorial Chemistry)</i> 61:33-45 (1998)
*	85.	Brody and Gold, "Aptamers as therapeutic and diagnostic agents," <i>Reviews in Molecular Biotechnology</i> 74:5-13 (2000)
*	86.	Burgin et al., "Chemically Modified Hammerhead Ribozymes with Improved Catalytic Rates," <i>Biochemistry</i> 35:14090-14097 (1996) (volume no. mistakenly listed as 6)
*	87.	Caruthers et al., "Chemical Synthesis of Deoxyoligonucleotides and Deoxyoligonucleotide Analogs," <i>Methods in Enzymology</i> 211:3-19 (1992)
*	88.	Cech, "Ribozymes and Their Medical Implications," <i>JAMA</i> 260:3030-3034 (1988)
*	89.	Chartrand et al., "An oligodeoxyribonucleotide that supports catalytic activity in the hammerhead ribozyme domain," <i>Nucleic Acids Research</i> 23(20):4092-4096 (1995)
*	90.	Crooke et al., "Antisense '97: A roundtable on the state of the idustry," <i>Nature Biotechnology</i> 15:519-524 (1997)
*	91.	Crooke, "Advances in Understanding the Pharmacological Properties of Antisense Oligonucleotides," <i>Advances in Pharmacology</i> 40:1-49 (1997)
*	92.	Crooke, "Antisense Therapeutics," <i>Biotechnology and Genetic Engineering Reviews</i> 15:121-157 (1998)
*	93.	Crooke, "Progress in Antisense Technology: The End of the Beginning," <i>Methods in Enzymology</i> 313:3-45 (1999)
*	94.	Delihais et al., "Natural antisense RNA/target RNA interactions: Possible models for antisense oligonucleotide drug design," <i>Nature Biotechnology</i> 15:751-753 (1997)
*	95.	Duval-Valentin, "Specific inhibition of transcription by triple helix-forming oligonucleotides," <i>Proc. Natl. Acad. Sci. USA</i> 89:504-508 (1992)
*	96.	Egholm et al., "PNA hybridizes to complementary oligonucleotides obeying the Watson-Crick hydrogen-bonding rules," <i>Nature</i> 365:566-568 (1993)
*	97.	Elbashir et al., "Duplexes of 21-nucleotide RNAs mediate RNA interference in cultured mammalian cells," <i>Nature</i> 411:494-498 (2001)
*	98.	Fox, "Targeting DNA with Triplexes," <i>Current Medicinal Chemistry</i> 7:17-37 (2000)
*	99.	Freier et al., "Improved free-energy parameters for predictions of RNA duplex stability," <i>Proc. Natl. Acad. Sci. USA</i> 83:9373-9377 (1986) [sometimes referred to as Frier]
*	100.	Gold et al., "Diversity of Oligonucleotide Functions," <i>Annu. Rev. Biochem.</i> 64:763-797 (1995)
*	101.	Halloran and Parker, "The Preparation of Nucleotide-Protein Conjugates: Carbodiimides as Coupling Agents," <i>Journal of Immunology</i> 96:373-378 (1966)

Examiner	Date Considered
----------	-----------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with any communication.

Form PTO-1449 U.S. Department of Commerce Patent and Trademark Office INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Atty. Docket No. 02-030-A	Serial No. 10/366,191
	Applicant : Radka et al.	
	Filing Date: February 12, 2003	Group: Not yet assigned

*	102.	Hammann et al., "Length Variation of Helix III in a Hammerhead Ribozyme and Its Influence on Cleavage Activity," <i>Antisense & Nucleic Acid Drug Development</i> 9:25-31 (1999)
*	103.	Hermann and Patel, "Adaptive Recognition by Nucleic Acid Aptamers," <i>Science</i> 287:820-825 (2000)
*	104.	Hertel et al., "Numbering System for the Hammerhead," <i>Nucleic Acids Research</i> 20:3252 (1992)
*	105.	Ishiwata et al., "Physical-Chemistry Characteristics and Biodistribution of Poly(ethylene glycol)-Coated Liposomes Using Poly(oxyethylene) Cholesteryl Ether," <i>Chem. Pharm. Bull.</i> 43:1005-1011 (1995) (mistakenly referred to as Ishiwataet)
*	106.	Jayasena, "Aptamers: An Emerging Class of Molecules that Rival Antibodies in Diagnostics," <i>Clinical Chemistry</i> 45:1628-1650 (1999)
*	107.	Kearney et al., "A New Mouse Myeloma Cell Line That Has Lost Immunoglobulin Expression but Permits the Construction of Antibody-Secreting Hybrid Cell Lines," <i>Journal of Immunology</i> 123:1548-1550 (1979)
*	108.	Kore, et al., "Sequence specificity of the hammerhead ribozyme revisited; the NIH rule," <i>Nucleic Acids Research</i> , 26(18):4116-4120 (1998).
*	109.	Kusser, "Chemically modified nucleic acid aptamers for in vitro selections: evolving evolution," <i>Reviews in Molecular Biotechnology</i> 74:27-38 (2000)
*	110.	Lasic and Needham "The 'Stealth' Liposome: A Prototypical Biomaterial," <i>Chemical Reviews</i> 95:2601-2627 (1995)
*	111.	Lasic and Papahadjopoulos, "Liposomes Revisited," <i>Science</i> 267:1275-1276 (1995)
*	112.	Limbach et al., "Summary: the modified nucleosides of RNA," <i>Nucleic Acids Research</i> 22(12):2183-2196 (1994)
*	113.	Liu et al., "Cationic Liposome-mediated Intravenous Gene Delivery," <i>J. Biol. Chem.</i> 270(42):24864-24870 (1995)
*	114.	Moore and Sharp, "Site-Specific Modification of Pre-mRNA: The 2'-Hydroxyl Groups at the Splice Sites," <i>Science</i> 256:992-996 (1992)
*	115.	Oku et al., "Real-time analysis of liposomal trafficking in tumor-bearing mice by use of positron emission tomography," <i>Biochimica et Biophysica Acta</i> 1238:86-90 (1995)
*	116.	Player and Torrence, "The 2-5A System: Modulation of Viral and Cellular Processes Through Acceleration of RNA Degradation," <i>Pharmacol Ther.</i> 78:55-113 (1998)

Examiner	Date Considered
-----------------	------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with any communication.

Form PTO-1449 U.S. Department of Commerce Patent and Trademark Office INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Atty. Docket No. 02-030-A	Serial No. 10/366,191
	Applicant : Radka et al.	
	Filing Date: February 12, 2003	Group: Not yet assigned

*	117.	Praseuth et al., "Triple helix formation and the antigene for sequence-specific control of gene expression," <i>Biochimica et Biophysica Acta</i> 1489:181-206 (1999)
*	118.	Santoro and Joyce, "A general purpose RNA-cleaving DNA enzyme," <i>Proc. Natl. Acad. Sci. USA</i> 94:4262-4266 (1997)
*	119.	Santoro et al., "RNA Cleavage by a DNA Enzyme with Extended Chemical Functionality," <i>J. Am. Chem. Soc.</i> 122:2433-2439 (2000)
*	120.	Scaringe et al., "Chemical synthesis of biologically active oligoribonucleotides using β -cyanoethyl protected ribonucleoside phosphoramidites," <i>Nucl Acids Res.</i> 18:5433-5441 (1990)
*	121.	Schmajuk et al., "Antisense Oligonucleotides with Different Backbones," <i>The Journal of Biological Chemistry</i> 274:21783-21789 (1999)
*	122.	Shabarova et al., "Chemical ligation of DNA: The first non-enzymatic assembly of a biologically active gene," <i>Nucleic Acids Research</i> 19:4247-4251 (1991)
*	123.	Silverman et al., "Selective RNA Cleavage by Isolated RNase L Activated with 2-5A Antisense Chimeric Oligonucleotides," <i>Methods in Enzymology</i> 313:522-533 (1999)
*	124.	Stein and Cheng, "Antisense Oligonucleotides as Therapeutic Agents - Is the Bullet Really Magical?" <i>Science</i> 261:1004-1288 (1993)
*	125.	Stein et al., "A Specificity Comparison of Four Antisense Types: Morpholino, 2'-O-Methyl RNA, DNA, and Phosphorothioate DNA," <i>Antisense & Nucleic Acid Drug Development</i> 7:151-157 (1997)
*	126.	Sullenger et al., "Overexpression of TAR Sequences Renders Cells Resistant to Human Immunodeficiency Virus Replication," <i>Cell</i> 63:601-608 (1990)
*	127.	Sun, "Technology evaluation: SELEX, Giliad Sciences Inc," <i>Current Opinion in Molecular Therapeutics</i> 2:100-105 (2000)
*	128.	Torrence et al., "Targeting RNA for degradation with a (2'-5') oligoadenylate-antisense chimera," <i>Proc. Natl. Acad. Sci. USA</i> 90:1300-1304 (1993)
*	129.	Turner et al., "Improved Parameters for Prediction of RNA Structure," <i>Cold Spring Harbor Symposia on Quantitative Biology</i> Volume LII, pp. 123-133 (1987)
*	130.	Turner et al., "Free Energy Increments for Hydrogen Bonds in Nucleic Acid Base Pairs," <i>J. Am. Chem. Soc.</i> 109:3783-3785 (1987)
*	131.	Usman and Cedergren, "Exploiting the chemical synthesis of RNA," <i>TIBS</i> 17:334-339 (1992)
*	132.	Usman et al., "Automated Chemical Synthesis of Long Oligoribonucleotides Using 2'-O-Silylated Ribonucleoside 3'-O-Phosphoramidites on a Controlled-Pore Glass Support: Synthesis of a 43-Nucleotide Sequence Similar to the 3'-Half Molecule of an <i>Escherichia coli</i> Formylmethoionine tRNA," <i>J. Am. Chem. Soc.</i> 109:7845-7854

Examiner	Date Considered
-----------------	------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with any communication.

Form PTO-1449 U.S. Department of Commerce Patent and Trademark Office INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Atty. Docket No. 02-030-A	Serial No. 10/366,191
	Applicant : Radka et al.	
	Filing Date: February 12, 2003	Group: Not yet assigned

		(1987)
*	133.	Usman et al., "Chemical modification of hammerhead ribozymes: activity and nuclease resistance," <u>Nucleic Acids Symposium Series</u> 31:163-164 (1994)
*	134.	Usman et al., "Hammerhead ribozyme engineering," <u>Current Opinion in Structural Biology</u> 1:527-533(1996)
*	135.	Werner and Uhlenbeck, "The effect of base mismatches in the substrate recognition helices of hammerhead ribozymes on binding and catalysis," <u>Nucleic Acids Research</u> 23:2092-2096 (1995)
*	136.	Wincott et al., "Synthesis, deprotection, analysis and purification of RNA and ribozymes," <u>Nucleic Acids Research</u> 23(14):2677-2684 (1995)
*	137.	Wincott et al., "Synthesis, deprotection, analysis and purification of RNA and ribozymes," <u>Nucleic Acids Research</u> 23(14):2677-2684 (1995)
*	138.	Wincott et al., "A Practical Method for the Production of RNA and Ribozymes," <u>Methods in Molecular Biology</u> 74:59-69 (1997)
*	139.	Yoshikawa et al., "Studies of Phosphorylation. III. Selective Phosphorylation of Unprotected Nucleosides," <u>Bulletin of the Chemical Society of Japan</u> 42:3505-3508 (1969)
CXL -2778	140.	Bahramian et al., "Transcriptional and Posttranscriptional Silencing of Rodent $\alpha 1(I)$ Collagen by a Homologous Transcriptionally Self-Silenced Transgene," <u>Molecular and Cellular Biology</u> , 274-283 (1999)
CXXI-2320	141.	Fire et al., "Potent and Specific Genetic Interference by Double-Stranded RNA in <i>Caenorhabditis Elegans</i> ," <u>Nature</u> 391:806-811(1998)
CXL -2779	142.	Hamilton, et al., "A Species of Small Antisense RNA in Posttranscriptional Gene Silencing in Plants," <u>Science</u> , 286, 950-952 (1999)
CXLI -2824	143.	Lin et al., "Policing rogue genes," <u>Nature</u> , 402, 128-129 (1999)
CXLI -2826	144.	Sharp et al., "RNAi and double-strand RNA," <u>Genes & Development</u> , 13:139-141 (1999)
CXLI -2828	145.	Strauss, Evelyn, "Molecular Biology: Candidate 'Gene Silencers' Found," <u>Molecular Biology</u> , Vol. 286, No. 5441, p. 886 (1999) [sometimes mistakenly referred to as being published in <u>Science</u>]
CXXIV-2395	146.	Tuschl et al., "Targeted mRNA Degradation by Double-Stranded RNA In Vitro," <u>Genes & Development</u> 13:3191-3197 (1999)
CXLI -2827	147.	Waterhouse et al., "Virus resistance and gene silencing in plants can be induced by simultaneous expression of sense and antisense RNA," <u>Proc. Natl. Acad. Sci. USA</u> , 95, 13959-13964 (1998)
IX-193	148.	Durand et al., "Circular Dichroism Studies of an Oligodeoxyribonucleotide Containing a Hairpin Loop Made of a Hexaethylene Glycol Chain: Conformation and Stability," <u>Nucleic Acids Research</u> 18:6353-6359 (1990) [sometimes referred to as Seela and Kaiser]
XIII-266	149.	Seela and Kaiser, "Oligodeoxyribonucleotides containing 1,3-propanediol as nucleoside substitute," <u>Nucleic Acids Research</u> 15:3113-3129 (1987)

Examiner	Date Considered
-----------------	------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with any communication.

Form PTO-1449 U.S. Department of Commerce Patent and Trademark Office INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Atty. Docket No. 02-030-A	Serial No. 10/366,191
	Applicant : Radka et al.	
	Filing Date: February 12, 2003	Group: Not yet assigned

IX-186	150.	Cload and Schepartz, "Polyether Tethered Oligonucleotide Probes," <u>J. Am. Chem. Soc.</u> 113:6324-6326 (1991)
IX-185	151.	Richardson and Schepartz, "Tethered Oligonucleotide Probes. A Strategy for the Recognition of Structured RNA," <u>J. Am. Chem. Soc.</u> 113:5109-5111 (1991)
IX-196	152.	Ma et al., "Design and Synthesis of RNA Miniduplexes via a Synthetic Linker Approach. 2. Generation of Covalently Closed, Double-Stranded Cyclic HIV-1 TAR RNA Analogs with High Tat-Binding Affinity," <u>Nucleic Acids Research</u> 21:2585-2589 (1993)
IX-195	153.	Ma et al., "Design and Synthesis of RNA Miniduplexes via a Synthetic Linker Approach," <u>Biochemistry</u> 32:1751-1758 (1993)
IX-189	154.	McCurdy et al., "Deoxyoligonucleotides with Inverted Polarity: Synthesis and Use in Triple-Helix Formation" <u>Nucleosides & Nucleotides</u> 10:287-290 (1991)
IX-188	155.	Jaschke et al., "Automated Incorporation of Polyethylene Glycol into Synthetic Oligonucleotides," <u>Tetrahedron Letters</u> 34:301-304 (1993) (sometimes mistakenly referred to as Jsckhe)
IX-184	156.	Ono et al., "DNA Triplex Formation of Oligonucleotide Analogues Consisting of Linker Groups and Octamer Segments That Have Opposite Sugar-Phosphate Backbone Polarities," <u>Biochemistry</u> 30:9914-9921 (1991)
IX-183	157.	Ferentz and Verdine, "Disulfied Cross-Linked Oligonucleotides," <u>J. Am. Chem. Soc.</u> 113:4000-4002 (1991)
CXLII-2855	158.	Schwarz et al., "Asymmetry in the Assembly of the RNAi Enzyme Complex," <u>Cell</u> , 1115, 199-208 (2003)
CXXIV-2394	159.	Zamore et al., "RNAi: Double-Stranded RNA Directs the ATP-Dependent Cleavage of mRNA at 21 to 23 Nucleotide Intervals," <u>Cell</u> 101:25-33 (2000)
CXXXVII-2731	160.	Allshire, "RNAi and Heterochromatin - A Hushed-up Affair," <u>Science</u> 297:1818-1819 (2002)
CXXXVII-2726	161.	Volpe et al., "Regulation of Heterochromatic Silencing and Histone H3 Lysine-9 Methylation by RNAi," <u>Science</u> 297:1833-1837 (2002)
CXXXVII-2732	162.	Hall et al., "Establishment and Maintenance of a Heterochromatin Domain," <u>Science</u> 297:2232-2237 (2002)
CXXXVII-2730	163.	Hutvagner and Zamore, "A MicroRNA in a Multiple-Turnover RNAi Enzyme Complex," <u>Science</u> 297:2056-2060 (2002)
CXXXVII-2728	164.	McManus et al., "Gene Silencing Using Micro-RNA Designed Hairpins," <u>RNA</u> 8:842-850 (2002)
CXXXVII-2727	165.	Reinhart et al., "MicroRNAs in Plants," <u>Genes & Development</u> 16:1616-1626 (2002)
CXXXVII-2724	166.	Reinhart and Bartel, "Small RNAs Correspond to Centromer Heterochromatic Repeats," <u>Science</u> 297:1831 (2002)
CXXXV-2682	167.	Martinez et al., "Single-Stranded Antisense siRNAs Guide Target RNA Cleavage in RNAi," <u>Cell</u> 110:563-574 (2002)

Examiner	Date Considered
-----------------	------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with any communication.

Form PTO-1449 U.S. Department of Commerce Patent and Trademark Office INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Atty. Docket No.	Serial No.
	02-030-A	10/366,191
	Applicant : Radka et al.	
	Filing Date: February 12, 2003	Group: Not yet assigned

CXXXVI-2706	168.	Schwarz et al., "Evidence that siRNAs Function as Guides, Not Primers, in the <i>Drosophila</i> and Human RNAi Pathways," <i>Molecular Cell</i> 10:537-548 (2002)
CXLII-2853	169.	Verdel et al., "RNAi-Mediated Targeting of Heterochromatin by the RITS Complex, <i>Science</i> , 303, 672-676 (2004)
CXXXVII-2729	170.	Jenuwein, "An RNA-Guided Pathway for the Epigenome," <i>Science</i> 297:2215-2218 (2002)
XXXXIX-3	171.	Akhtar and Juliano, "Cellular Uptake and Intracellular Fate of AntiSense Oligonucleotides," <i>Trends Cell Biol.</i> 2:139-144 (1992)
LXVIII-765	172.	Elkins and Rossi, "Ch. 2 - Cellular Delivery of Ribozymes," in <i>Delivery Strategies for Antisense Oligonucleotide Therapeutics</i> , edited by Akhtar, CRC Press, pp. 17-220 (1995)
CII-1840	173.	Maurer et al., "Lipid-based systems for the intracellular delivery of genetic drugs," <i>Molecular Membrane Biology</i> 16:129-140 (1999)
CII-1829	174.	Hofland and Huang, "Formulation and Delivery of Nucleic Acids," <i>Handbook of Exp. Pharmacol.</i> 137:165-192 (1999)
CII-1832	175.	Lee and Larson, "Modified Liposome Formulations for Cytosolic Delivery of Macromolecules," <i>ACS Symposium Series</i> 752:184-192 (2000)
CXXXVIII-2755	176.	Gonzalez et al., "New Class of Polymers for the Delivery of Macromolecular Therapeutics," <i>Bioconjugate Chem.</i> 10:1068-1074 (1999)
CXII-2097	177.	Sommer et al., "The Spread and Uptake Pattern of Intracerebrally Administered Oligonucleotides in Nerve and Glial Cell Populations of the Rat Brain," <i>Antisense & Nucleic Acid Drug Development</i> 8:75-85 (1998)
CXLIV-2870	178.	Epa et al., "Downregulation of the p75 Neurotrophin Receptor in Tissue Culture and In Vivo, Using β -Cyclodextrin-Adamantane-Oligonucleotide Conjugates," <i>Antisense & Nucleic Acid Drug Development</i> , 10:469-478 (2000)
CXXVI-2419	179.	Broaddus et al., "Distribution and stability of antisense phosphorothioate oligonucleotides in rodent brain following direct intraparenchymal controlled-rate infusion," <i>J Neurosurg</i> 88:734-742 (1998)
CXI-2076	180.	Karle et al., "Differential Changes in Induced Seizures After Hippocampal Treatment of Rats with an Antisense Oligodeoxynucleotide to the GABA _A Receptor $\gamma 2$ Subunit," <i>Euro. Jour. of Pharmacology</i> 340:153-160 (1997)
CXI-2077	181.	Bannai et al., "Effect of Injection of Antisense of Oligodeoxynucleotides of GAD Isozymes into Rat Ventromedial Hypothalamus on Food Intake and Locomotor Activity," <i>Brain Research</i> 784:305-315 (1998)
CXI-2084	182.	Rajakumar et al., "Effects of Intrastriatal Infusion of D ₂ Receptor Antisense Oligonucleotide on Apomorphine-Induced Behaviors in the Rat," <i>Synapse</i> 26:199-208 (1997)
CXVIII-2249	183.	Wu-Pong et al., "Antisense c-myc Oligonucleotide Cellular Uptake and Activity," <i>Antisense Research and Development</i> 4:155-163 (1994)
CXI-2078	184.	Bannai et al., "Water-absorbent Polymer as a Carrier for a Discrete Deposit of Antisense Oligodeoxynucleotides in the Central Nervous System," <i>Brain Research Protocols</i> 3:83-87 (1998)
CXII-2095	185.	Simantov et al., "Dopamine-Induced Apoptosis in Human Neuronal Cells: Inhibition by Nucleic Acids Antisense to the Dopamine Transporter," <i>Neuroscience</i> 74(1):39-50 (1996)
XCVI-1665	186.	Emerich et al., "Biocompatibility of Poly (DL-Lactide-co-Glycolide) Microspheres Implanted Into the Brain," <i>Cell Transplantation</i> 8:47-58 (1999)
XCVI-1653	187.	Boado et al., "Drug Delivery of Antisense Molecules to the Brain for Treatment of Alzheimer's Disease and Cerebral AIDS," <i>Journal of Pharmaceutical Sciences</i> 87:1308-1315 (1998)

Examiner	Date Considered
-----------------	------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with any communication.

Form PTO-1449 U.S. Department of Commerce Patent and Trademark Office INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Atty. Docket No.	Serial No.
	02-030-A	10/366,191
	Applicant : Radka et al.	
	Filing Date: February 12, 2003	Group: Not yet assigned

XCV-1599	188.	Tyler et al., "Specific gene blockade shows that peptide nucleic acids readily enter neuronal cells in vivo," <i>FEBS Letters</i> 421:280-284 (1998)
XCVI-1622	189.	Pardridge et al., "Vector-mediated delivery of a polyamide ("peptide") nucleic acid analogue through the blood-brain barrier <i>in vivo</i> ," <i>Proc. Natl. Acad. Sci. USA</i> 92:5592-5596 (1995)
XCVI-1667	190.	Boado, "Antisense drug delivery through the blood-brain barrier," <i>Advanced Drug Delivery Reviews</i> 15:73-107 (1995)
CV-1936	191.	Aldrian-Herrada et al., "A peptide nucleic acid (PNA) is more rapidly internalized in cultured neurons when coupled to a <i>retro-inverso</i> delivery peptide. The antisense activity depresses the target mRNA and protein in magnocellular oxytocin neurons," <i>Nucleic Acids Research</i> 26:4910-4916 (1998)
XCV-1600	192.	Tyler et al., "Peptide nucleic acids targeted to the neurotensin receptor and administered i.p. cross the blood-brain barrier and specifically reduce gene expression," <i>Proc. Natl. Acad. Sci. USA</i> 96:7053-7058 (1999)
CXXIII-2368	193.	Wu and Wu, "Receptor-mediated <i>in Vitro</i> Gene Transformation by a Soluble DNA Carrier System," <i>The Journ. of Biol. Chem.</i> 262:4429-4432 (1987)
CXXVI-2408	194.	Baenziger and Fiete, "Galactose and N-Acetylgalactosamine-Specific Endocytosis of Glycopeptides by Isolated Rat Hepatocytes," <i>Cell</i> 22:611-620 (1980)
CXXIII-2369	195.	Connolly et al., "Binding and Endocytosis of Cluster Glycosides by Rabbit Hepatocytes," <i>The Journ. of Biol. Chem.</i> 257:939-945 (1982)
CXXVI-2413	196.	Lee and Lee, "Preparation of Cluster Glycosides of N-Acetylgalactosamine That Have Subnanomolar Binding Constants Towards the Mammalian Hepatic Gal/GalNAc-specific Receptor," <i>Glyconjugates J.</i> 4:317-328 (1987)
CXXVI-2409	197.	Ponpipom et al., "Cell-Specific Ligands for Selective Drug Delivery to Tissues and Organs," <i>J. Med. Chem.</i> 24:1388-1395 (1981)
CXLI -2809	198.	Yamada et al., "Nanoparticles for the delivery of genes and drugs to human hepatocytes," <i>Nature Biology</i> , Published online: 29 June 2003, doi:10.1038/nbt843 (August 2003 Volume 21 Number 8 pp 885-890) (2003) [mistakenly referred to as Yamado]
CXLII-2856	199.	Pal-Bhadra et al., "Heterochromatic Silencing and HP1 Localizatin in Drosophila Are Dependent on the RNAi Machinery," <i>Science</i> , 303, 669-672 (2004)

Examiner	Date Considered
----------	-----------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with any communication.